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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,830	11/20/2003	David G. Conroy	MSFT121952	8567

27195 7590 07/30/2008
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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2194

NOTIFICATION DATE	DELIVERY MODE
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07/30/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/717,830	Applicant(s) CONROY ET AL.	
	Examiner Li B. Zhen	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 26 are pending in the application.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
5. **Claims 1 – 6, 16, 21 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,643,650 to Slaughter et al. [hereinafter**

Slaughter, previously cited] in view of U.S. Patent Application Publication No. 2003/0074215 to Morciniec et al. [hereinafter Morciniec].

6. As to claim 1, Slaughter teaches a device in a networked system [computing environment may be distributed over the Internet; col. 17, lines 20 – 38] that is a computer subsystem [device may be a networking transport addressable unit; col. 17, lines 50 – 65], comprising:

one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65] and a contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55]. Slaughter does not specifically disclose a unilateral contract for describing one or more behaviors of the service, wherein the one or more behaviors are described by behavior sentences, wherein the unilateral contract specifies an order of messages that flow in or out of services, wherein the unilateral contract is accepted when an external service promises to perform the unilateral contract according to the order of messages specified in the

unilateral contract or when the external service performs the unilateral contract according to the order of messages specified in the unilateral contract, and wherein acceptance of the unilateral contract creates an instance of communication between services.

However, Morciniec teaches a unilateral contract for describing one or more behaviors of the service [paragraph 0058], wherein the one or more behaviors are described by behavior sentences [contract actions; paragraph 0030], wherein the unilateral contract specifies an order of messages that flow in or out of services [descriptions when executed control the timing and sequence of requests; paragraph 0037], wherein the unilateral contract is accepted when an external service promises to perform the unilateral contract according to the order of messages specified in the unilateral contract or when the external service performs the unilateral contract according to the order of messages specified in the unilateral contract [Process Engine controls the sequence and timing of such requests on the basis of the business process description; paragraph 0030], and wherein acceptance of the unilateral contract creates an instance of communication between services [Communication is achieved by loading the descriptions into the Process Engine 110, 210; paragraph 0037].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Slaughter to incorporate the features of Morciniec. One of ordinary skill in the art would have been motivated to make the combination because this allows the creation of business protocols to be separated

from their regulation, and facilitate the ease of e-commerce through an unconstrained use of business protocols for contract fulfillment [paragraph 0110 of Morciniec].

7. As to claim 6, Slaughter as modified teaches in a networked computer system [col. 17, lines 20 – 38 of Slaughter], a terminal service [col. 17, lines 50 – 65 of Slaughter], comprising:

a display service [display service; col. 79, lines 10 – 47 of Slaughter] with a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19 of Slaughter] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65 of Slaughter] and a unilateral contract for describing one or more behaviors of the display service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55 of Slaughter and paragraph 0058 of Morciniec], wherein the one or more behaviors associated with a service are described by behavior sentences [paragraph 0030 of Morciniec], wherein the unilateral contract is accepted when an other service promises to perform the unilateral contract in accordance with the one or more behaviors or when the other service performs the unilateral contract in accordance with the one or more behaviors [paragraph 0030 of Morciniec], and wherein acceptance of

the unilateral contract creates an instance of communication between the display service and another service [paragraph 0037 of Morciniec].

8. As to claim 16, Slaughter teaches a computer-implemented method for processing input/output events by devices as services, the method comprising:

requesting a service representing a device for an input/output event [event gate may subscribe itself as a consumer of that event; col. 32, lines 2 – 11 of Slaughter], the service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19 of Slaughter] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65 of Slaughter] and a unilateral contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55 of Slaughter and paragraph 0058 of Morciniec], the unilateral contract expressed in a language specifying an order of messages that flow in or out of services [paragraph 0037 of Morciniec];

receiving a customizable, tag-based message that contains the input/output event [event message may contain an XML event document; col. 32, lines 10 – 23 of Slaughter]; and

requesting the service to remove the input/output event [XML event document is removed from the message and the process of distribution begins; col. 32, lines 10 – 32 of Slaughter].

9. As to claim 21, see the rejection to claim 16 above. In addition, Morciniec teaches the one or more behaviors are described by behavior sentences [paragraph 0030], wherein the unilateral contract is accepted when an external service promises to perform the unilateral contract according to the order of messages specified in the unilateral contract or when the external service performs the unilateral contract according to the order of messages specified in the unilateral contract [paragraph 0030], and wherein acceptance of the unilateral contract creates an instance of communication between services [paragraph 0037].

10. As to claim 26, Slaughter as modified teaches in a networked system [computing environment may be distributed over the Internet; col. 17, lines 20 – 38 of Slaughter], a device that is a computer subsystem [device may be a networking transport addressable unit; col. 17, lines 50 – 65 of Slaughter], comprising:

one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50 of Slaughter], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19 of Slaughter] that includes a uniform resource identifier [services may be URI-addressable instances of

software (or firmware) that run on devices; col. 17, lines 50 – 65 of Slaughter], and a unilateral contract for describing one or more behaviors of the service [paragraph 0058 of Morciniec], wherein the port associated with the service comprises behavioral types [paragraph 0045 of Morciniec], and wherein the device communicates with another device of the networked system based on compatibility of behavioral types [paragraph 0056 of Morciniec], the device being capable of coupling to the networked system to exchange customizable, tag-based messages [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55 of Slaughter].

11. As to claim 2, Slaughter teaches wherein the one or more services comprise an information service, the information service being capable of producing a customizable, tag-based document for describing the capabilities of the device [col. 33, lines 36 – 50 and col. 36, lines 47 – 62].

12. As to claim 3, Slaughter teaches wherein the one or more services comprise a data service, the data service being capable of storing input/output events generated by the device and further being capable of responding to queries regarding the input/output events [Message gates may also support publish and subscribe message passing for events; col. 31, line 60 – col. 32, line 3].

13. As to claim 4, Slaughter teaches a network device driver that enables communication between services [col. 15, lines 30 – 48].

14. As to claim 5, Slaughter teaches a decentralized operating system on which the one or more services are executed [distributed computing environment; col. 14, lines 20 – 43].

15. **Claims 7 – 15, 17 – 20 and 22 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaughter and Morciniec further in view of U.S. Patent No. 7,269,664 to Hutsch et al. [hereinafter Hutsch, previously cited].**

16. As to claim 7, Slaughter teaches one or more services executing in the device [clients 110 and services 112 may or may not reside within the same network device; col. 17, lines 37 – 50], each service including a port identifiable by an identifier [URI may include a protocol, host, port number, and name; col. 38, line 62 – col. 39, line 19] that includes a uniform resource identifier [services may be URI-addressable instances of software (or firmware) that run on devices; col. 17, lines 50 – 65] and a unilateral contract for describing one or more behaviors of the service [a device may receive an XML message schema for a service and then construct a gate based on that schema to access the device. The XML schema may be viewed as defining the contract with the

service and the generated gate code as providing a secure way to execute the contract; col. 23, lines 25 – 55]. Slaughter does not specifically disclose a cursor shape service.

However, Hutsch teaches a display service includes a cursor shape service for describing the shape on an on-screen cursor [scroll action is interpreted by the windowing environment on user device 102i and a scroll command is set by the windowing environment to the remote window frame of the lightweight remote visualization component on user device 102i; col. 23, lines 16 – 40].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the system of Slaughter and Morciniec to include the features of Hutsch. One of ordinary skill in the art would have been motivated to make the combination because this unifies the user interfaces to services and unification of the user interface framework allows users to experience a contiguous “surfing” metaphor for interactions [col. 5, lines 31 – 55 of Hutsch].

17. As to claim 8, Slaughter as modified teaches the display service includes a cursor position service for describing the position of an on-screen cursor [col. 48, lines 18 – 23 of Hutsch], the cursor position service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the cursor position service [col. 23, lines 25 – 55 of Slaughter].

18. As to claim 9, Slaughter as modified teaches wherein the display service includes a window service for describing a window [col. 22, lines 18 – 30 of Hutsch], the window service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the window service [col. 23, lines 25 – 55 of Slaughter].

19. As to claim 10, Slaughter as modified teaches wherein the display service includes a window list service [col. 15, lines 30 – 43 of Hutsch] for containing a list of window services appearing on a display, the window list service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the window list service [col. 23, lines 25 – 55 of Slaughter].

20. As to claim 11, Slaughter as modified teaches wherein the display service includes a window update service for refreshing a window represented by a window service [col. 23, lines 30 – 40 of Hutsch], the window update service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the window update service [col. 23, lines 25 – 55 of Slaughter].

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21. As to claim 12, Slaughter teaches a keyboard service [col. 93, lines 35 – 49] with a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19] and a unilateral contract for describing one or more behaviors of the keyboard service [col. 23, lines 25 – 55].

22. As to claim 13, Slaughter teaches wherein the keyboard service includes a data service for containing keyboard events generated by a keyboard [col. 32, lines 2 – 11], the data service being capable of responding to queries to remove keyboard events for processing [col. 32, lines 10 – 32].

23. As to claim 14, Slaughter teaches a mouse service [col. 23, lines 16 – 40 of Hutsch], the mouse service including a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the mouse service [col. 23, lines 25 – 55 of Slaughter].

24. As to claim 15, Slaughter teaches wherein the mouse service includes a data service for containing mouse events generated by a mouse [col. 32, lines 2 – 11], the data service being capable of responding to queries to remove mouse events for processing [col. 32, lines 10 – 32].

25. As to claim 17, Slaughter as modified teaches requesting the service for creating a window, the act of creating a window creating a window service [col. 22, lines 17 – 30 of Hutsch] with a port identifiable by an identifier that includes a uniform resource identifier [col. 38, line 62 – col. 39, line 19 of Slaughter] and a unilateral contract for describing one or more behaviors of the window service [col. 23, lines 25 – 55 of Slaughter].

26. As to claim 18, Slaughter as modified teaches comprising requesting the service for refreshing the window, the act of requesting invoking a window update service that repaints the window [col. 23, lines 30 – 40 of Hutsch].

27. As to claim 19, Slaughter as modified teaches requesting the service to change a cursor shape, the act of requesting invoking a cursor shape service that changes the shape of the cursor [col. 23, lines 16 – 40 of Hutsch].

28. As to claim 20, Slaughter as modified teaches requesting the service to change a position of a cursor, the act of requesting invoking a cursor position service that changes the position of the cursor [col. 48, lines 18 – 23 of Hutsch].

29. As to claims 22 – 25, these are product claims that correspond to method claims 17 – 20; see the rejections to claims 17 – 20 above which also meet these product claims.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

CONTACT INFORMATION

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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